

## Abstract

A mechanical switching apparatus for resolution adjustment comprises a case and a switch arranged within the case and having a portion exposed out of the case. The exposed portion of the switch is slidable within an opening  
5 formed on the case. The switch has a first clamping arm and a second clamping arm extending therefrom. The first clamping arm has a light emitter thereon and the second clamping arm has a light receiver thereon. At least two slit sets with different slit number are provided between the light emitter and the light receiver and the switch switching the light emitter and the light receiver  
10 between the slit sets for achieving different resolution. The slit sets are arranged on single or multiple rotational plates simultaneously rotated with a scanning carriage.